

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/010,490	01/21/1998	KANJI HATA	177/527415	8750

7590

12/31/2002

WENDEROOTH LIND AND PONACK  
2033 K STREET N W  
SUITE 800  
WASHINGTON, DC 20006

EXAMINER

KIM, PAUL D

ART UNIT

PAPER NUMBER

3729

DATE MAILED: 12/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/010,490

Applicant(s)

HATA ET AL.

Examiner

Paul D Kim

Art Unit

3729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 8-11, 13-15 and 18-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-11, 13-15 and 18-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 17, 18
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This office action is a response to the amendment filed on 11/5/2002.

#### *Specification*

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: --A COMPONENT MOUNTING APPARATUS--.

#### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 8-11, 13-15, 18, 21, 29, 31, 32 and 33 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The scope of invention is not clear. The recited claims are drawn to an apparatus, but the claims 10, 11, 14, 15, 18, 21, 29, 31, 32 and 33 relies on the combination and subcombination of the operation of the apparatus recited in the claims as follow:

Re. Claims 10 and 11: "the other of the first and second mounting head sections carries out a component mounting operation for mounting..." in lines 5-7.

Re. Claim 18: "sucking a plurality of the components prior to a component mounting operation" in lines 22-23.

Re. Claims 29, 31 and 33: "during at least one operation of the first mounting head section in a component sucking operation and a component mounting operation" in lines 1-3.

The examiner has taken the invention to be directed to the apparatus, not the operation of the apparatus.

Re. Claim 6: The limitation "the board" in line 10 lacks antecedent basis.

The limitation "the component supply table" in line 24 lacks antecedent basis.

Re. Claim 18: The limitation "the component supply table" in line 20 lacks antecedent basis.

The limitation "a plurality of components" in lines 22 and 27 should be changed to --the plurality of components--.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 8-11, 13-15, 18-19, 22-26 and 28-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Kamijima (US PAT. 5,002,448).

Fig. 1 of Kamijima teaches an apparatus for mounting electrical components comprising: a pair of component supply tables (15) arranged on opposite sides of a board mounting position (14); a first mounting head section (31) having a plurality of suction nozzles (18), wherein the first mounting head section moves a first (X) and second (Y) direction to mount the components on a printed circuit board (16), which is not moved; and a second mounting head section (31) having a plurality of suction nozzles (18), wherein the second mounting head section moves a third (X) and fourth (Y) direction to mount the components on a board (16).

The transferred direction (X) of the printed circuit board is parallel with the first and third directions and is perpendicular with the second and fourth directions of the first and second mounting heads.

Re. Claims 10 and 11: Kamijima teaches that the apparatus is fully operated automatically and control logic for operation is any known type in the art (col. 5, lines 6-13).

Re. Claims 13-15: Kamijima teaches that one of the first and second mounting heads has a plurality of component suction nozzles as shown in Fig. 2.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 20, 21 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamijima.

Kamijima teaches all the claimed invention as set forth above except the component supply tables accommodated different kinds of components. It would have been deemed a matter of designer's choice as to the components being mounted. Since the components solve no state patentable feature as to the claimed apparatus, it would be obvious to select components having different configuration on the supply tables based on the operation.

### ***Response to Arguments***

9. Applicant's arguments with respect to claims 8-11, 13-15 and 18-34 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul D Kim whose telephone number is 703-308-8356. The examiner can normally be reached on Tuesday-Friday between 7:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 703-308-1789. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-9835 for regular communications and 703-305-9835 for After Final communications.

Art Unit: 3729

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-5648.

PDK  
December 27, 2002

A handwritten signature in black ink, appearing to read 'Peter Vo', with a long horizontal line extending to the right.

**PETER VO  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700**